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Insulin Receptor β (L55B10) Mouse mAb

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For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #3643
Swiss-Prot Acc. #P06213

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, M, R	95 kDa	Mouse IgG1**

Background: Type I insulin-like growth factor receptor (IGF-IR) is a transmembrane receptor tyrosine kinase that is widely expressed in many cell lines and cell types within fetal and postnatal tissues (1-3). Receptor autophosphorylation follows binding of the IGF-I and IGF-II ligands. Three tyrosine residues within the kinase domain (Tyr1131, Tyr1135 and Tyr1136) are the earliest major autophosphorylation sites (4). Phosphorylation of these three tyrosine residues is necessary for kinase activation (5,6). Insulin receptors (IRs) share significant structural and functional similarity with IGF-I receptors, including the presence of an equivalent tyrosine cluster (Tyr1146/1150/1151) within the kinase domain activation loop. Tyrosine autophosphorylation of the insulin receptor is one of the earliest cellular responses to insulin stimulation (7). Autophosphorylation begins with phosphorylation of Tyr1146 and either Tyr1150 or Tyr1151, while full kinase activation requires triple tyrosine phosphorylation (8).

Specificity/Sensitivity: Insulin Receptor beta (L55B10) Mouse mAb detects endogenous levels of total insulin receptor β.

Source/Purification: Monoclonal antibody is produced by immunizing animals with recombinant human insulin receptor β carboxy-terminal fragments.

Background References:

(1) Adams, T.E. et al. (2000) *Cell. Mol. Life Sci.* 57, 1050–1093.

(2) Baserga, R. et al. (2000) *Oncogene* 19, 5574–5581.

(3) Scheidegger, K.J. et al. (2000) *J. Biol. Chem.* 275, 38921–38928.

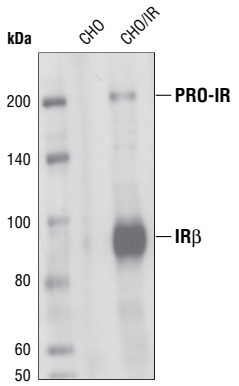
(4) Hernandez-Sanchez, C. et al. (1995) *J. Biol. Chem.* 270, 29176–29181.

(5) Lopaczynski, W. et al. (2000) *Biochem. Biophys. Res. Commun.* 279, 955–960.

(6) Baserga, R. et al. (1999) *Exp. Cell Res.* 253, 1–6.

(7) White, M.F. et al. (1985) *J. Biol. Chem.* 260, 9470–9478.

(8) White, M.F. et al. (1988) *J. Biol. Chem.* 263, 2969–2980.



Western blot analysis of cell lysates from CHO and CHO/IR transfected with insulin receptor expression cDNA, using Insulin Receptor β (L55B10) Mouse mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-mouse secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nondat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.